

**REMARKS**

The application has been reviewed in light of the Office Action dated July 26, 2005. Claims 1-20 are pending in the application. By this Amendment, claim 16 has been canceled, without prejudice or disclaimer, and claims 1, 3, 4, 6, 14, 17 and 19 have been amended to clarify the claimed invention, without narrowing a scope of the claimed invention.

The Office Action states that the reissue oath/declaration filed with this application is defective because it fails to identify at least one error which is relied upon to support the reissue application. Claims 1-20 are rejected as purportedly based upon a defective reissue oath/declaration under 35 U.S.C. §251.

Each of the claims (1-13) in the subject patent is directed to a method of initializing a phase-change optical information recording medium.

The Reissue Application Declaration By The Inventor filed by Applicant on July 12, 2004 states that "I verily believe the original patent to be wholly or partly inoperative or invalid, ... by reason of the patentee claiming more or less than he had the right to claim in the patent" and that one error upon which reissue is based is the "inadvertent failure to include at least one apparatus claim such as new claim 14 and/or one medium claim such as new claim 17 or new claim 19." That is, it should be apparent from these statements and the new claims included in the reissue application as filed on April 14, 2004 that a broadening reissue is sought.

In other words, an error relied upon to support the reissue application is that the patent claims are too narrow, and are not directed to an apparatus such as recited in new claim 14 and/or to a medium such as recited in new claim 17 or new claim 19.

A new Reissue Application Declaration By The Inventor is submitted herewith as **Exhibit 1** attached hereto. The new Reissue Application Declaration By The Inventor more clearly states

that an error upon which reissue is based is that the “patent claims (1-13) are too narrow, and are not directed to an apparatus such as recited in new claim 14 and/or to a medium such as recited in new claim 17 or new claim 19.”

Applicant submits that the clarified statement of an error upon which reissue is based is compliant with the guidelines of the Patent Office, and therefore requests that the objection to the oath/declaration filed with this application and the rejection of claims 1-20 under 35 U.S.C. §251 be withdrawn.

Claims 1-8, 14, 15 and 17-20 were objected to under 37 C.F.R. §1.75(a) for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 16 was objected to under 37 C.F.R. §1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim.

By this Amendment, claim 16 has been canceled, without prejudice or disclaimer, and claims 1, 3, 4, 6, 14, 17 and 19 have been amended to clarify the claimed invention, without narrowing a scope of the claimed invention.

Withdrawal of the objections under 37 C.F.R. §1.75 is requested.

Claims 16-20 were rejected under 37 C.F.R. §102(e) as purportedly anticipated by U.S. Patent No. 6,373,814 to Kasami et al.

By this Amendment, claim 16 has been canceled, without prejudice or disclaimer. Therefore, the rejection is now moot with respect to claim 16.

Applicant has carefully considered the Examiner’s comments and the cited art, and respectfully submit that independent claims 17 and 19 are patentable over the cited art, for at least the following reasons.

The subject patent (Patent No. 6,445,669) relates to initialization of a phase-change

optical information recording medium. A phase-change optical information recording medium generally includes a substrate on which several layers are successively formed, such as a dielectric layer, a phase-change type recording layer, a second dielectric layer and a layer of metal or alloy. During recording of a phase-change optical information recording medium, the laser selectively heats tiny areas of the recording layer to change the phase of each heated area from more crystalline into less crystalline (also known as “amorphous”) phase, in order to create marks that can be called “pits”. During erase, the laser changes the amorphous areas back into more crystalline areas. However, since the phase-change recording layer is in an amorphous state immediately after layer formation, the optical information recording medium needs to be initialized before it can be used practically.

Initialization of the optical information recording medium is conventionally performed by utilizing a laser device with its longer axis of the power distribution perpendicular to disk tracks and imparting a gradual displacement of the laser device along the radial direction of the disk (i.e., perpendicular to the direction of disk tracks). The spatial distribution of laser power applied to a phase-change optical information recording medium during initialization substantially affects characteristics of output data signals and characteristics of tracking signals. For example, when a large fluctuation in the laser power exists along the longer axis of the laser power distribution perpendicular to disk tracks, reflectivity values of the optical disk after the initialization may undesirably fluctuate along the perpendicular direction. This may result in scatter in tracking signals, which is a drawback throughout succeeding reading and signal processing steps of the optical disk.

Applicant found that signal characteristics of a phase-change optical information recording medium initialized by bringing laser power in both end regions of the spatial

distribution to be smaller than that in the center region of the distribution improved considerably as compared to phase-change optical information recording media initialized by using conventional techniques. A phase-change optical information recording medium initialized in such a manner has homogeneous crystallization and concomitant reflectivity of the recording layer, and as a result excellent characteristics of tracking signals and output data signals. Each of independent claims 17 and 19 is directed to an initialized phase-change optical information recording medium having such features.

Kasami, as understood by Applicant, is directed to the problem of conventionally initialized optical discs which experience increased jitter even in the first ten overwrites. Kasami proposes an alternative initialization method comprising the steps of crystallizing recording regions formed on the main surface of a disc, and recording at least marks along tracks by irradiating the recording regions with laser beams wherein the length of each of the spaces formed between the marks along the tracks is shorter than a shortest length of spaces to be formed between information signals to be recorded on the recorded regions. According to Kasami, a disc initialized to have such a pattern of marks has improved jitter characteristics within the first ten overwrites.

Kasami does not purport to be motivated by an objective of providing homogeneous crystallization and concomitant reflectivity of a properly initialized recording layer, and the resulting excellent characteristics of tracking signals and output data signals.

Applicant simply does not find teaching or suggestion in the cited art of a phase change optical information recording medium initialized by a semiconductor laser device configured to irradiate the phase-change optical information recording medium with a light beam to initialize the medium, wherein the light beam has an average laser power in a first end region and in a

second end region of the width at half maximum of the spatial distribution, smaller than an average laser power in the center region of the full width at half maximum of the spatial distribution, as provided by the subject matter of each of independent claims 17 and 19.

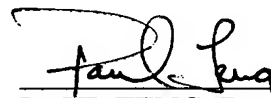
Accordingly, Applicant respectfully submits that independent claims 17 and 19 and the dependent claims which depend therefrom are patentable over the cited art.

In view of the amendments to the claims and remarks hereinabove, Applicant submits that the application is now in condition for allowance. Accordingly, Applicant earnestly solicits the allowance of the application.

If a petition for an extension of time is required to make this response timely, this paper should be considered to be such a petition. The Office is hereby authorized to charge any fees that may be required in connection with this response and to credit any overpayment to our Deposit Account No. 03-3125.

If a telephone conference could advance the prosecution of this application, the Examiner is respectfully requested to call the undersigned attorney.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Paul Teng", is written over a horizontal line.

PAUL TENG, Reg. No. 40,837  
Attorney for Applicant  
Cooper & Dunham LLP  
Tel.: (212) 278-0400